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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,717	12/22/2000	David M. Pangrac	ADVENT001US	4536

42640 7590 06/28/2006

DILLON & YUDELL LLP  
8911 NORTH CAPITAL OF TEXAS HWY  
SUITE 2110  
AUSTIN, TX 78759

EXAMINER
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SALTARELLI, DOMINIC D

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/748,717

Applicant(s)

PANGRAC ET AL.

Examiner

Dominic D. Saltarelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 9, 2006 has been entered.

### **Response to Arguments**

2. Applicant's arguments filed May 9, 2006 have been fully considered but they are not persuasive.

3. Regarding claim 59, applicant argues that Williams does not teach exclusively assigning optical transceivers to subscriber destinations (applicant's remarks, pages 4-5). Applicant states that "There is nothing in Williams teaching that suggests other time slots within the same wavelength are not assigned to other customer premises." (applicant's remarks, page 5, lines 10-11). Applicant supports this assertion by stating "If Williams was teaching a system that provided exclusive assignment of an optical transceiver to a particular subscriber destination, the system would never need circuitry and functionality to determine 'if the bandwidth necessary for the telephone call is available'." referring to the embodiment of Williams which teaches provisioning of telephone calls by assigning both a wavelength and a time slot to the service

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(applicant's remarks, page 4, lines 9-27) and stating "The examiner points to col. 12, lines 41-44 for the proposition that Williams teaches exclusively assigning bandwidth to particular users. However this statement merely in Williams acknowledges that Williams teaches providing a separate wavelength to a particular user that has been granted a frequency and time slot." (applicant's remarks, page 5, lines 2-5). Lastly, applicants state "Williams statement at col. 12, lines 41-44 that separation of wavelengths provides security is correct vis-à-vis other wavelengths, but does not seem to recognize the security risk as between the assigned time slots."

4. In response, Williams teaches, in col. 12, lines 41-44, that specific wavelengths are exclusively assigned to particular subscribers, because this enhances security by ensuring that information destined for another subscriber **is not even received by any other subscribers**. Column 12, lines 41-44 state, specifically "Separation of wavelengths for each customer provides security in the distribution of information because one customer premises does not receive the information selectively distributed to another customer premises." Applicant's argument that "There is nothing in Williams teaching that suggests other time slots within the same wavelength are not assigned to other customer premises." is contrary to the above cited portion, because if other time slots were assigned to other customers within the same wavelength, the aforementioned benefit of enhanced security would be negated, as customer premises would receive data destined for other customers during said time slots. Applicant's argument that "If Williams was teaching a system that provided exclusive assignment of an optical transceiver to a particular subscriber destination, the system would never

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need circuitry and functionality to determine 'if the bandwidth necessary for the telephone call is available'." is not relevant to the disclosure of Williams, because while applicants may not see a need for determination circuitry if optical transceivers and their corresponding wavelengths were exclusively assigned, Williams nonetheless discloses both. Applicant's argument that "The examiner points to col. 12, lines 41-44 for the proposition that Williams teaches exclusively assigning bandwidth to particular users. However this statement merely in Williams acknowledges that Williams teaches providing a separate wavelength to a particular user that has been granted a frequency and time slot." is similar to the first argument cited above. Similarly, if two or more customer's were assigned the same wavelength but different time slots, the disclosed benefit of enhanced security would be negated, as all receivers would receive the same time multiplexed information. What applicants have failed to recognize is that the assignment of both a wavelength and time slot to each service individually is to allocate bandwidth on a per service basis, and each customer premises accesses **multiple services** utilizing their assigned wavelength for bandwidth.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al. (5,808,767, of record) [Williams] in view of Gilbert et al. (6,016,311, of record) [Gilbert].

Regarding claim 59, Williams discloses a communication system for distributing information via an optical network (fig. 6), comprising;

An optical plant (fig. 6, optical fibers 104 and 612<sub>1..N</sub>) ;

A point of distribution (CO in fig. 1), comprising:

A multi-port optical switch (input interface to MAC 105 in fig. 1 that includes the discrete switches 106-110, col. 6 line 49 – col. 7 line 3 and col. 9, lines 40-47, MAC 105 performs switching on all optical signals, as seen in fig. 5, the MAC 105 receives optical signals from SONET ADD/DROP location 601 and routes said optical signals to optical coupler 611, col. 14, lines 23-28) that forwards source information for each of a plurality of subscriber destinations to a corresponding port (col. 6 line 66 – col. 7 lines 3);

A plurality of optical transceivers (fig. 4, transmitter array 401 and receiver 403), each optical transceiver coupled to one of the plurality of ports of the switch to convert information received from a respective port to a respective one of a plurality of optical source signals (each discrete wavelength carries an optical source signal, col. 10, lines 25-33), and each optical transceiver exclusively assigned to a subscriber destination to allocated unshared bandwidth to its assigned subscriber destination (each transceiver operates on a distinct wavelength, col. 10, lines 18-33, wherein the wavelengths are dynamically

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assigned to subscriber destinations, col. 8, lines 24-31, exclusively, col. 12, lines 31-44); and

A wavelength division multiplexing (WDM) combiner (optical combiner/coupler for multi-IC arrays, col. 10, lines 34-43 and col. 12, lines 7-15) that combines an optical source signal from each of the plurality of optical transceivers into a combined optical signal and that transmits the combined signal onto the optical plant (col. 9 line 65 – col. 10 line 8 and col. 10 lines 34-43);

A plurality of fiber optic cables, each routed to a corresponding one of a plurality of subscriber destinations (fig. 5, col. 12, lines 45-60); and

A WDM selector (fig. 5, WDS 501, 502), coupled to the optical plant, that receives and separates the combined optical signal from the WDM combiner into its individual optical signal components, and that forwards each separate optical signal over a corresponding one of the plurality of fiber optic cables to the subscriber destinations (col. 12, lines 50-60);

a plurality of optical gateway devices (fig. 1, IID 101, col. 6, lines 30-34 and col. 7 lines 18-23), each located at a respective subscriber destination and coupled to a respective one of the plurality of fiber optic cables (fig. 1, fiber 104);

the optical plant includes an upstream optical plant (col.8, lines 19-24) and the point of distribution includes a WDM splitter (fig. 4, splitter 404) coupled to the WDM selector via the upstream optical plant (they are coupled through common connection to fiber 104, shown in fig. 4).

Williams fails to disclose the WDM splitter is coupled to each of the plurality of optical transceivers via a separate fiber optic cable.

In an analogous art, Gilbert teaches a point of deployment fig. 6, cell site 104, col. 10 line 60 – col. 1 line 5) which handles upstream/downstream communications with subscribers in a modular fashion (upstream/downstream connections with subscribers is handled by a modular modem bank, col. 11, lines 6-12), for the benefit of upgradeability and optimization of the point of deployment's capacity for communications (col. 11, lines 13-20).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Williams to implement upstream/downstream communications with subscribers in a modular fashion, as taught by Gilbert, wherein each discrete wavelength channel of upstream/downstream communication would be routed through discrete transceivers, thus the WDM splitter which receives the upstream signals would be coupled to each of the plurality of optical transceivers via a separate fiber optic cable, for the benefit of upgradeability, through the addition of more transceivers, and optimization, by matching the number of transceivers to the load requirements of subscribers, of the point of deployment's capacity for distributing information.



***Conclusion***

7. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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## Certificate of Mailing

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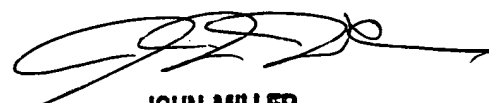
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic D. Saltarelli whose telephone number is (571) 272-7302. The examiner can normally be reached on Monday - Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dominic Saltarelli  
Patent Examiner  
Art Unit 2611

DS



**JOHN MILLER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**